

WHAT IS CLAIMED IS:

1. An automatic angle adjusting system for an image capturing device, the image capturing device having an image capturing unit for capturing an image, the automatic angle adjusting system comprising:

5 a driving device for providing the image capturing unit with a mechanical driving force that drives the image capturing unit to rotate to a preset angle to capture the image;

an angle detector for detecting the location of the image capturing unit; and

10 a controlling device for storing the preset angle value and calculating an angle of the location of the image capturing unit deviating from the preset angle to transmit a signal to the driving device that drives the image capturing unit to rotate to compensate the deviated angle and resume the preset angle.

2. The automatic angle adjusting system as claimed in claim 1, wherein the preset angle is an angle of the image to be captured deviating from a horizontal line.

15 3. The automatic angle adjusting system as claimed in claim 2, wherein the preset angle is 0° parallel to the horizontal line.

4. The automatic angle adjusting system as claimed in claim 2, wherein the preset angle is an angle other than 0°.

5. The automatic angle adjusting system as claimed in claim 1, further comprising a
20 display device for receiving a signal from the controlling device to display a shooting status of the image capturing device.

6. The automatic angle adjusting system as claimed in claim 1, further comprising a display device for receiving a signal from the controlling device to display a light signal indicating that the image capturing unit is adjusted to a preset balance position.

25 7. The automatic angle adjusting system as claimed in claim 1, further comprising a sound device for receiving a signal from the controlling device to generate a sound signal indicating that the image capturing unit is adjusted to a preset balance position.

8. The automatic angle adjusting system as claimed in claim 1, wherein the driving device comprises a motor and a gear mechanism connected to the motor.
9. The automatic angle adjusting system as claimed in claim 1, wherein the angle detector is a horizon angle detector.
- 5 10. The automatic angle adjusting system as claimed in claim 1, wherein the angle detector comprises a conductive pattern board, a tunnel member formed in the conductive pattern board, and at least one conductive element rotatably mounted in the tunnel member.
11. The automatic angle adjusting system as claimed in claim 10, wherein the
10 tunnel member comprises a plurality of metal pads.
12. The automatic angle adjusting system as claimed in claim 11, wherein the metal pads are partly embedded in an inner wall of the tunnel member and serve as switches.
13. The automatic angle adjusting system as claimed in claim 11, wherein the metal
15 pads are arranged in two rows, and at least one pair of the metal pads each from one of the rows form a tactile switch that is capable of being electrically actuated to generate a position signal indicating a position of the pair of metal pads.
14. The automatic angle adjusting system as claimed in claim 1, wherein the controlling device is a microprocessor.
- 20 15. The automatic angle adjusting system as claimed in claim 11, wherein the controlling device comprises a conversion module, an angle preset module, a comparison calculating module, a compensation calculating module, a motor driving module and a display driving module; the conversion module for receiving position signals from the electrically actuated metal pads of the tunnel member to obtain the
25 location of the image capturing unit and for calculating the angle of the location of the image capturing unit deviating from a horizontal line; the angle preset module for inputting and storing the present angle value; the comparison calculating module for

receiving the deviated angle value from the conversion module and the preset angle value from the angle preset module to calculate an angle of difference between the preset angle and the deviated angle; the compensation calculating module for receiving the angle value of difference from the comparison calculating module and calculating a reverse compensation angle for resuming the preset angle; the motor driving module for receiving the reverse compensation angle value and for calculating a rotation direction and rotation turns for the driving device to resume the preset angle and generating a signal indicating the rotation direction and rotation turns; and the display driving module for receiving the deviated angle value from the conversion module, the preset angle value from the angle preset module and the reverse compensation angle value from the compensation calculating module, and converting these angles into parameters, and for receiving a rotation complete signal from the motor driving module.

16. The automatic angle adjusting system as claimed in claim 1, wherein the preset angle is inputted via an input interface.

17. The automatic angle adjusting system as claimed in claim 15, wherein the controlling device further comprises a sound driving module for receiving the rotation complete signal from the motor driving module.

18. The automatic angle adjusting system as claimed in claim 17, wherein the rotation complete signal is processed and transmitted by the controlling device to a display device where a display signal or sound signal is displayed when the image capturing unit is adjusted to a preset position.

19. The automatic angle adjusting system as claimed in claim 17, wherein the rotation complete signal is processed and transmitted by the controlling device to a sound device where a sound signal is generated when the image capturing unit is adjusted to a preset position.

20. The automatic angle adjusting system as claimed in claim 18, wherein the display signal is a text signal.